

April 7, 1964

Professor C.-G. Heden
Microbiological Institute
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Stockholm 60, Sweden

Dear Professor Heden:

May I congratulate you for the invaluable compendium you have assembled on the problem of planetary decontamination. I hope this does not remain a reserved document but can be published for wider availability.

I certainly share your concerns about the problem, and am pleased that you have responded to it. The more microbiologists with general interests and reputations can be involved, the better.

As to urgency, I thought the 1964 Mars window was in October-December, but even so I doubt that it would be possible to seriously influence any mission plans except planned miss distances, if even these; but a wider reaction among the international scientific public could play an important part. To that extent it is precisely not in COSPAR (and among space scientists), but by the astronomers and biologists that the most effective voices should now be raised. Also Professor Lovell has a great deal of influence and I know shares our concerns.

I am sorry local events now preclude my personal attendance at the Florence meeting (lest there be any misunderstanding, I should point out that many colleagues, including NASA officials, have recommended I should go, but I have had to forswear extensive travelling to be able to meet other commitments). I must apologize for not having replied more expeditiously to your timely letters of February 20 and 22.

As to Dr. Sagan's comments, I of course agree with his general disposition, but not with his detailed strategy, which is too oversimplified:

1. The values at risk in the contamination of Mars are broader than the first detection of Martian life, and actually depend on the present or future habitability of the planet, regardless of whether it now supports life.
2. The evaluation of risk will change with each increment of knowledge about the planet, and especially after each mission which adds to that knowledge. So I think we have to keep in mind the ultimate accumulation of risk; but we should concentrate on the hazards of each proposed mission, in the light of the information then available.

HEDEN

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Among other microbiologists in this country who could usefully serve your important group are Marr (Davis), Halvorsen (Wisconsin), Adelberg (Yale). Many of our colleagues are likely to be impatient about such discussions not because they disagree with the objectives, but with the attitude either that the discussion is futile in the face of political complications, or unnecessary since the conservational requirements are self-evident.

Since you are meeting in Florence, could you not have an Italian microbiologist-- e.g. Cavalli (Pavia) or Magni (Parma)?

I would also recommend Professor T. Egami (Tokyo University) and Sydney Rubbo (Melbourne) both to broaden the international base and for their specific technical insight. You might also wish to involve Dolfuss (Paris and Pic-du-Midi) as an eminent Mars observer.

I would have an even worse conscience about missing the meeting if I felt I could really add very much to what I have already instigated and written on the subject, or if I had less confidence in the group you are organizing. In some respects, the representations I would continue to make to our own administration on the subject would be strengthened even more by a completely independent reassessment not impregnable as a "rehash" of views to which I am already known to be deeply committed.

With best regards and personal appreciation,

Sincerely yours,

Joshua Lederberg
Professor of Genetics